

REMARKS/ARGUMENTS

Reconsideration of this application in light of the above amendments and following comments is courteously solicited.

The invention as claimed in amended claim 1 is directed to a fluid handling device comprising: a device body; a flow passage which is formed in said device body and which has a shape for allowing a fluid to move therein due to capillarity, one end of said flow passage being open to an outside environment; and a sealing protrusion serving as a sealing portion, formed so as to be integrated with said device body, for sealing the other end of said fluid passage to isolate the other end of said flow passage from the outside environment, at least a part of said sealing protrusion being capable of being removed from the other end of said flow passage so as to allow the other end of said flow passage to be open to the outside environment for moving said fluid to the other end of said fluid passage due to capillarity.

Thus, according to the invention as claimed in the amended claim 1, it is possible to provide an inexpensive microfluid handling device which is capable of simply controlling the flow of plural kinds of very small amounts of liquids (microsamples) independently of a driving source and which is suitable for a POC inspection.

Since the sealing protrusion of the fluid handling device as claimed in claim 1 is formed so as to be integrated with the device body, it is possible to integral-mold the fluid handling device with the sealing protrusion by injection molding or the like. In addition, at least a part of the sealing protrusion of the fluid handling device as claimed in claim 1 can be removed

from the other end of the flow passage so as to allow the other end of the flow passage to be open to the outside environment for moving the fluid to the other end of the fluid passage due to capillarity.

Claims 1-12 were rejected under 35 U.S.C. §102(b) as being anticipated by USP 3,799,742 to Coleman.

Coleman discloses a miniaturized integrated analytical test container. This container has a reception chamber (e.g. reception chamber 20) for receipt of a specimen, and first passageway means (e.g. passageway 22) connecting the container interior with the container exterior. First seal means (e.g. closure 70) prevent communication between the reception chamber and the container exterior. A separation chamber (e.g. separation chamber 26), which may be a filtration chamber, is disposed adjacent the reception chamber and separated therefrom by second seal means (e.g. membrane 30). Conduit means (e.g. fluid conduits 44, 46 and vent conduit 50) are provided to permit flow from the separation chamber to the first and second cuvettes (e.g. first cuvette 40 and second cuvette 42) and vent means (e.g. vent opening 52 and strippable tape or film 54) which communicate with at least one cuvette.

In the embodiment shown in FIGS. 1-3, the container has an elongated container body 2 which has an upper end 10, a lower end 12 and connecting sides 14, 16. The container body 2 defines a reception chamber 20 which is disposed closely adjacent the upper end 10. A passageway 22 extends through the upper end wall 10 and connects the reception chamber 20 with the exterior of the container. In initiating use of the container, access to the reception chamber 20 is obtained through the

passageway 22 after removal or destruction of a passageway seal or closure. A specimen is thoroughly admixed with a reagent material or other chemical materials in the reception chamber 20. A separation chamber 26 is disposed adjacent the reception chamber 20 and is connected therewith by means of passageway 28. A seal in the form of a molded integrally formed membrane 30 closes the passageway 28 prior to completion of mixing of the specimen and reagent materials in the reception chamber 20. The seal 30 is then fractured either by application of a compressive fracturing force by means of the hands of the user or other independent means such as by an independent tool. This permits the test fluid to flow into the separation chamber 26. Disposed at positions below the separation chamber 26 are first and second cuvettes 40 and 42. The filtered test fluid emerging from the separation chamber 26 flows through a fluid conduit 44 into the first cuvette 40. A fluid conduit 46 emerges from the upper portion of the first cuvette 40 and is connected with the upper portion of the second cuvette 42. An exhaust vent conduit 50 is connected with the upper portion of the second cuvette 42 and communicates with the container exterior at a vent opening 52 in the sidewall 16. A strippable tape or film 54 serving as a closure member is removed to establish communication between the container exterior and the second cuvette 42. The vent opening 52 is positioned at a level above the bottom of the reception chamber 20 in order to resist undesired discharge of the test fluid from the second cuvette 42 into the vent conduit 50.

Therefore, in the analytical test container of Coleman, the passageway seal or closure is first removed or destroyed to open

the passageway 22 at the upper end 10, and then, a specimen and a reagent material or other chemical materials are fed into the reception chamber 20 via the passageway 22. After the mixing of the specimen and the reagent material or other chemical materials in the reception chamber 20 is completed, the seal 30 is fractured to permit the test fluid to flow into the separation chamber 26 due to gravity. Then, the filtered test fluid emerging from the separation chamber 26 flows through the fluid conduit 44 into the first cuvette 40. Furthermore, since the vent opening 52 is positioned at a level above the bottom of the reception chamber 20 in order to resist undesired discharge of the test fluid from the second cuvette 42 into the vent conduit 50, the movement of the test fluid from the second cuvette 42 into the vent conduit 50 due to capillarity is not permitted.

Thus, Coleman fails to disclose or suggest that a sealing protrusion is formed so as to be integrated with a device body. Therefore, Coleman fails to disclose or suggest any fluid handing device with sealing protrusion capable of being integral-molded by injection molding or the like.

Coleman also fails to disclose or suggest any sealing protrusion, at least a part of which can be removed from an end of a flow passage so as to allow the end of the flow passage to be open to the outside environment for moving the fluid to the end of the fluid passage due to capillarity.

Therefore, the amended and newly added claims are not anticipated by Coleman.

Accordingly, it is believed that amended and newly added claims patentably distinguish the invention from the prior art.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

By /Gregory P. LaPointe #28395/
Gregory P. LaPointe
Attorney for Applicants
Reg. No.: 28,395

Telephone: 203-777-6628
Telefax: 203-865-0297

Date: October 16, 2007